Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

November 12, 2019

Federally Enforceable District Origin Operating Permit (FEDOOP) Statement of Basis

Source: Consolidated Grain and Barge Co.
1047 S. 15th Street
Louisville, KY 40210

Owner: Consolidated Grain and Barge Co.
1047 S. 15th Street
Louisville, KY 40210

Application Documents:	See Table I-9				
Draft Permit:	10/08/2019				
Permitting Engineer:	Aaron DeWitt			Permit Number:	O-0066-19-F
Plant ID:	0066	SIC:	5153 & 2041	NAICS:	424510 & 311211

Introduction:

This permit will be issued pursuant to District Regulation 2.17- Federally Enforceable District Origin Operating Permits. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Initial issuance of FEDOOP STAR Exempt operating permit, incorporating C-0066-1001-18-F and installing a truck load-out spout.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter less than 10 microns (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$). Jefferson County is classified as a nonattainment area for ozone (O_3). This facility is located in the portion of Jefferson County that is an attainment area for sulfur dioxide (SO_2).

Permit Application Type:

☒ Initial issuance

Permit Revision
- ☐ Administrative
- ☐ Minor
- ☐ Significant

☐ Permit renewal

Compliance Summary:

☐ Compliance certification signed
☐ Source is out of compliance
☐ Compliance schedule included
☒ Source is operating in compliance

I Source Information

1. Product Description:

Grain handling, milling, and storage.

2. Process Description:

Grain receiving, handling, storage and shipping. Milling operating receives grain via gravity wagon from grain elevator. Finished milled product bagged and loaded into a truck for shipment.

3. Site Determination:

There are no other facilities that are contiguous or adjacent to this facility.

4. Emission Unit Summary:

Emission Unit	Equipment Description
U1	Grain receiving, handling, storage and shipping

5. Fugitive Sources:

The fugitive sources identified by the source are truck receiving, truck shipping, rail shipping, four (4) garner bins, four (4) scale bins, concrete upright bins, oat screen cleaner, rye screen cleaner, corn cleaner, corn scalper, milling receiving pit, milling storage bin, and milling truck loadout.

6. Permit Revisions:

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
386-72-O	N/A	11/30/2004	Renewal	One (1) truck dump pit & let for unloading grain
204-84-O	N/A	11/30/2001	Renewal	15th st. Annex basement
205-84-O	N/A	11/30/2001	Renewal	Head house annex: grain handling
206-84-O	N/A	11/30/2001	Renewal	Head house annex: Six (6) mixing or cushion boxes
207-84-O	N/A	11/30/2001	Renewal	Oak st. Annex
208-84-O	N/A	11/30/2001	Renewal	Head house annex: rail loading
209-84-O	N/A	11/30/2001	Renewal	Head house annex: No. 2 track, truck loading only, with one Red Wing grain nozzle
210-84-O	N/A	11/30/2001	Renewal	Head house annex: rail unloading on #4 and #6 tracks
252-89-O	N/A	11/30/2001	Renewal	Two (2) oil application Dust Suppression Systems, Dustop Model 39500
253-89-O	N/A	11/30/2001	Renewal	One (1) MAC model #144 MCF361 Fabric filter
386-08-O	N/A	04/30/2006	Renewal	One (1) Carter Day baghouse, model RJ96
O-0066-16-M	N/A	12/16/2016	Admin	Permit issuance. Include replacement grain cleaner, E11 (IA)
O-0066-19-F	10/08/2019	11/12/2019	Initial	FEDOOP issuance based on testing performed 4/18/2019. Incorporate 2018 Construction permit and new truck loading IA (7/25/2019) into permit O-0066-16-M and re-issue as FEDOOP.

7. Construction Permit History:

Permit No.	Effective Date	Description
16-46-C	9/3/1946	Four (4) drying furnaces
384-72-C	10/26/1972	One (1) dust control system for truck dump pit, Flex-Kleen 100 RA 64 reverse pulse jet bag collector
252-89-C	9/7/1989	One (1) oil Dust Suppression System rated at 15 gallons per hour. This equipment sprays FDA approved food grade white mineral oil on a grain laden moving conveyor.
253-89-C	9/7/1989	One (1) MAC model #141 MCF881 fabric filter with an 8 to 1 air to cloth ratio and rated at 52,000 cfm.
140-05-C	4/30/2005	One (1) Carter Day baghouse, model RJ96, to control PM emissions from the receiving truck dump bay.
248-09-C	11/30/2009	One (1) baghouse, make MikroPul/Pneumafil Reverse Air Filter, model 11.5-320-10, equipped with 320 bag filters and used to control emissions from six (6) fill and reclaim conveyors.
C-0066-1001-18-F	03/21/2018	Adding milling operation

8. Application and Related Documents

Document Number	Date	Description
94242	09/19/2018	New milling operation 6 month follow-up
94243	09/19/2018	Consolidated response to follow-up: just broke ground, hoping to have equipment running by end of year
96404	12/10/2018	Consolidated progress and question on stack testing methods
96405	12/10/2018	District response that Method 9, 5 and 210a are specified in permit
97636	03/19/2019	Stack test protocol submitted
97637	03/19/2019	Stack test review invoice
97647	03/18/2019	Stack test protocol
97656	03/20/2019	District comments on stack test protocol
97825	04/01/2019	Consolidated response to comments in stack test protocol including port location images
97918	04/05/2019	District request for distance to port locations

Document Number	Date	Description
97946	04/09/2019	Consolidated notice that stack test to take place April 18, 2019
97974	04/11/2019	Consolidated response to request for distance to port locations
97975	04/11/2019	District email asking for confirmation of stack test date
98622	06/05/2019	Stack test report
2949	07/22/2019	Consolidated Grain follow-up on next steps following stack test
2950	07/22/2019	District determination that stack test results qualify Consolidated a FEDOOP source and that an updated permit is forthcoming
2952	07/22/2019	Consolidated question if the PTE is based on 8,760 hours per year and if limited hours would make them a Minor source
2953	7/22/2019	District response that PTE is based on 8,760 hours per year, and that there is no way to limit operation and be a Minor source
2958	7/22/2019	Consolidated grain request for PTE calculations
2959	7/22/2019	District response to request for PTE calculations
2963	7/22/2019	Consolidated request for phone discussion
2964	7/22/2019	District response to request for phone discussion
2971	7/22/2019	District follow-up email after phone call. 100a, 100b and 200a sent to company to fill out FEDOOP STAR Exempt status and apply for new IA equipment
2972	7/22/2019	Consolidated installation planned dates and plan to return applications in the next few days
2988	7/23/2019	Consolidated questions of best way to submit applications
2989	7/23/2019	District response to question for way to submit applications
2991	7/23/2019	District comment that IA equipment can be submitted with a PTE showing a potential of less than 5 tpy does not require a filling fee
2993	7/23/2019	Consolidated response that they plan to submit a PTE showing the new equipment will be IA
2994	7/23/2019	District comment that a copy of the calculations must be submitted with 100A application
3113	7/25/2019	Scanned version of application 100A, 100B, and 200A.

9. Emission Summary

Pollutant (ton/yr)	CO	NOx	SO_2	PM_{10}	VOC	Total HAP	Single HAP
Potential Emissions	0.0	0.0	0.0	790.87	0.92	0.0	0.0
Major source trigger (based on PTE)	No	No	No	Yes	No	No	No

10. Applicable Requirements

☐	40 CFR 60	☒	SIP	☐	40 CFR 63
☐	40 CFR 61	☐	District Origin	☐	Other

11. Referenced Federal Regulations:

The source has no federal requirements.

II Regulatory Analysis

1. Stratospheric Ozone Protection Requirements:

Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. Consolidated Grain and Barge Co. does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

2. Basis of Regulation Applicability

a. Applicable Regulations

Regulation	Title	Basis
6.09	Standards of Performance for Existing Process Operations	Applies to each process operation that is not otherwise regulated by any other portion of Regulation 6 and was in existence or had a construction permit issued by the District by September 1, 1976.
7.08	Standards of Performance for New Process Operations	Equipment installed after September 1, 1976 and subject to the PM emission standard.

Plantwide

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Consolidated Grain and Barge Co. has requested emission limits of less than 25 tons per year for all criteria pollutants to be considered exempt from local TAC (STAR) regulations, as defined by Regulation 5.00, section 1.13.5.

Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit regular reports to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.1. The compliance reports are due within 60 days of the end of the reporting period:

Reporting Period	**Report Due Date**
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

b. Emission Unit U1 – Grain receiving, handling, storage and shipping

EP	Description	Applicable Regulations
E1	Truck receiving: One (1) truck dump pit	6.09
E2	Rail Receiving: Rail unloading on #4 and #6 tracks. Only two of three pits are used (other one not connected).	7.08
E3	Truck Shipping: No. 2 track	7.08
E4	Rail Shipping: Rail loading. No. 4 track.	7.08
E5a	Thirty-eight (38) grain loaders	7.08
E5b	Two (2) belt heads (one on transfer floor and one in basement)	7.08
E5c	Three (3) transfer drags: Oak st. #1, #2 and Oak St. transfer	7.08
E5d	Transfer drag-to-separator drag	7.08
E5e	Six (6) mixing or cushion boxes on first floor.	7.08

EP	Description	Applicable Regulations
E5f	Shipper 1, Shipper 2, Receiver 2 & Seperator	7.08
E5g	Receiver 2 Drag and Receiver 2 Leg,	7.08
E5h	One (1) elevator leg for unloading grain at truck dump	7.08
E5i	Two (2) belt conveyors: 15th St. Top #1 & #2	7.08
E5j	North and South cross drags	7.08
E5k	Forty (40) grain loaders	7.08
E5l	Four (4) belt head discharge points	7.08
E5m	Two (2) covered screw conveyors	7.08
E5n	Two (2) covered drag conveyors	7.08
E5o	Four (4) garner bins on garner floor.	7.08
E5p	Four (4) scale bins on scale floor.	7.08
E6	Concrete upright bins. 2,294,000 bushel permanent storage capacity	7.08
E7a	One (1) oat screen cleaner; make Crippen, model MF588RH, on first floor.	7.08
E7b	One (1) rye screen cleaner, make Marot, model EAC-2004, capacity 200 ton/hr, on first floor.	7.08
E7c	One (1) corn cleaner, make Tyler Ty-Rocket, model 660, on top floor.	7.08
E7d	One (1) corn scalper, make Tyler Ty-Rocket, model 330, on top floor.	7.08
E8a	One (1) receiving pit, make Sukup, model 7100, capacity 3,500 bushels/hr	7.08
E8b	One (1) enclosed internal transfer, make Sukup, capacity 7 ton/hr	7.08
E8c	One (1) storage bin, make Castlen Welding, capacity 7 ton/hr	7.08
E8d	One (1) roller mill, make Sengati Berga, model Prime 125/30 P4R, capacity 7 ton/hr	7.08
E8e	One (1) bagging line, make Express Scale, capacity 7 ton/hr	7.08
E8f	One (1) Mill truck load out, capacity 7 ton/hr (IA)	7.08
E11	Six (6) fill and reclaim conveyors (IA)	7.08

i. Standards

(1) Opacity

(a) Regulation 7.08, section 3.1.1 establishes an opacity standard.

(2) PM

(a) The emission standard for PM at Emission Point E1 is determined in accordance with Regulation 6.09, section 3.2:

$E = 4.10 \times (\text{process weight ton/hr})^{0.67}$

(b) The emission standard for PM at each emission point with a process throughput of less than 30 ton/hr is determined in accordance with Regulation 7.08, section 3.1.2 as follows:

PM lb/hr limit = $3.59 (\text{process weight ton/hr})^{0.62}$.

(c) It has been demonstrated that the potential uncontrolled PM emissions of emission points E1, E2, E3, E4, E5a-E5p, E6, E7a-E7d, E8f, and E11 cannot exceed the emissions limits in U1 of the permit. Therefore, there are no monitoring, recordkeeping, or reporting requirements for the Regulation 7.08 lb/hr PM standard.

III Other Requirements

1. Temporary Sources:

The source did not request to operate any temporary facilities.

2. Short Term Activities:

The source did not report any short term activities.

3. Emissions Trading:

The source is not subject to emission trading.

4. Alternative Operating Scenarios:

The source did not request any alternative operating scenarios.

5. Compliance History:

There are no records of any violations of the terms of the present or prior construction or operating permits.

6. Calculation Methodology or Other Approved Method:

Table 1 - U1 Milling Operation			
Emission Point ID	**Description**	**Control Device**	**Acceptable Emission Factor Sources and Calculation Methodology**
E1	Truck receiving: One (1) truck dump pit	C2	Uncontrolled PM emissions = throughput (lb/hr) * EF from AP-42 9.9.1 Controlled PM emissions = Uncontrolled PM emissions * (1-.98)
E2	Rail Receiving: Rail unloading on #4 and #6 tracks. Only two of three pits are used (other one not connected).	C2	
E3	Truck Shipping: No. 2 track	C5	
E4	Rail Shipping: Rail loading. No. 4 track.	C5	
E5a	Thirty-eight (38) grain loaders	C1 & C2	
E5b	Two (2) belt heads (one on transfer floor and one in basement)		
E5c	Three (3) transfer drags: Oak st. #1, #2 and Oak St. transfer		
E5d	Transfer drag-to-separator drag		
E5e	Six (6) mixing or cushion boxes on first floor.		
E5f	Shipper 1, Shipper 2, Receiver 2 & Seperator		
E5g	Receiver 2 Drag and Receiver 2 Leg,		
E5h	One (1) elevator leg for unloading grain at truck dump	C3	
E5i	Two (2) belt conveyors: 15th St. Top #1 & #2	C4	
E5j	North and South cross drags		
E5k	Forty (40) grain loaders		
E5l	Four (4) belt head discharge points		
E5m	Two (2) covered screw conveyors		
E5n	Two (2) covered drag conveyors		
E5o	Four (4) garner bins on garner floor.	N/A	
E5p	Four (4) scale bins on scale floor.	N/A	
E6	Concrete upright bins. 2,294,000 bushel permanent storage capacity	N/A	
E7a	One (1) oat screen cleaner; make Crippen, model MF588RH, on first floor.	C2	
E7b	One (1) rye screen cleaner, make Marot, model EAC-2004, capacity 200 ton/hr, on first floor.	C2	
E7c	One (1) corn cleaner, make Tyler Ty-Rocket, model 660, on top floor.	N/A	
E7d	One (1) corn scalper, make Tyler Ty-Rocket, model 330, on top floor.	N/A	
E11	Six (6) fill and reclaim conveyors (IA)	C4	
E8a	One (1) receiving pit, make Sukup, model 7100, capacity 3,500 bushels/hr	N/A	Uncontrolled PM emissions = 164.73 (lb/hr) * operating time

Table 1 - U1 Milling Operation			
Emission Point ID	**Description**	**Control Device**	**Acceptable Emission Factor Sources and Calculation Methodology**
E8b	One (1) enclosed internal transfer, make Sukup, capacity 7 ton/hr	C6	(hr) Controlled PM emissions = Uncontrolled PM emissions * (1-.9998)
E8c	One (1) storage bin, make Castlen Welding, capacity 7 ton/hr	N/A	
E8d	One (1) roller mill, make Sengati Berga, model Prime 125/30 P4R capacity 7 ton/hr	C6	
E8e	One (1) bagging line, make Express Scale, capacity 7 ton/hr	N/A	
E8f	One (1) Mill truck load out, capacity 7 ton/hr	N/A	

7. Insignificant Activities

Equipment	Qty	PTE (ton/yr)	Regulation Basis
Fill and reclaim conveyors (E11)	6	3.34 PM_{10}	Regulation 1.02, section 1.38
Oil dust suppression system, Dustop model 39500 (C1)	2	0.92 VOC	Regulation 1.02, section 1.38
Mill truck load out (E8f)	1	0.89 PM_{10}	Regulation 1.02, section 1.38

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use

Potential to Emit (PTE) as the annual emissions for each piece of equipment.

6. The District has determined that no monitoring, recordkeeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.